USDA United States Department of Agriculture | Forest Service | Helena National Forest | 2880 Skyway Drive Helena, MT 59602 406-449-5201

File Code: 1570 Date: March 1, 2012
Route To:

Subject: 1570 (215) A&L - ARO Letter - Bozeman Municipal Watershed ROD - Gallatin NF - NEC/AWR - #12-01-00-0031

To: Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Sara Jane Johnson on behalf of Native Ecosystems Council and Alliance for the Wild Rockies appealing the Bozeman Municipal Watershed Project Record of Decision on the Gallatin National Forest (GNF).

The Forest Supervisor's decision authorizes thinning and prescribed fire within strategic areas of the Bozeman and Hyalite drainages to achieve a meaningful reduction in potential fire severity and extent.

My review was conducted pursuant to, and in accordance with, 36 CFR 215.19 to ensure the analysis and decision are in compliance with applicable laws, regulations, policy, and orders. The appeal record, including the appellants' objections and recommended changes, has been thoroughly reviewed. Although I may not have listed each specific contention, I have considered all the issues raised in the appeal and believe they are adequately addressed below.

The appellants allege violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Administrative Procedures Act (APA) and the Forest Plan. The appellants request that the decision be remanded. An informal disposition meeting was held on February 7, 2010, but no resolution of the issues was reached.

ISSUE REVIEW

Issue 1. Grizzly Bear

Issue 1, Contention A. The appellants allege the Forest Service and the US Fish and Wildlife Service (FWS) will violate NEPA, NFMA, ESA and APA by failing: 1) to demonstrate there is an existing allowable take permit for grizzly bear for take caused by roads and a lack of security habitat; 2) to address the level of secure habitat in the BMW project; 3) to disclose the amount of reduction in grizzly bear secure habitat from the project; and 4) to disclose the impacts from roads and reduction in secure habitat from this project are unpermitted take.

Response: The project is far beyond the designated grizzly bear recovery zone, and on the fringe or even outside of the current known distribution zone for grizzly bears. It is in an area (south of I-90) where the (FWS) has indicated grizzly bears may occur. Based on this, the EIS

acknowledged that the proposed action is likely to have adverse effects on grizzly bear or their habitat, and entered into formal consultation with the FWS (ROD, p. 34; PF, Doc. 622). In response, the FWS issued a Biological Opinion (BO), with an Incidental Take Statement (ITS) and related Terms and Conditions (T&C) specific to the BMW project (PF, Doc. 623).

Since the Yellowstone grizzly bear population is currently meeting recovery criteria and expanding, restrictive direction for habitat management is largely limited to the area within the designated recovery zone. Consequently, there is little restrictive direction (i.e. standards) specific to grizzly bear habitat outside the recovery zone (Doc. 12, p. D-43). However, as noted in the Applicable Laws, Regulation, Policy and Direction section of the FEIS (for grizzly bear) (p. 357), there is programmatic direction (e.g. Forest-wide Travel Management Plan) that applies to activities that may affect bears outside the recovery zone (Doc. 12, p. D-68). The Travel Plan went through formal consultation with the FWS. In response, the FWS issued a BO for the Travel Plan (PF, Doc. 803) with an ITS for forest-wide access management activities allowed under the Travel Plan, both within and outside the recovery zone. The BMW FEIS incorporated Travel Plan direction and associated BO Terms and Conditions by reference (FEIS, p. 3-357).

Also incorporated by reference was a BO issued for a programmatic Biological Assessment (BA) developed for Gallatin Forest management actions outside the recovery zone (PF, Doc. 802). This BO considered land uses outside the recovery zone, and issued an ITS for such activities. The T&C for this BO require consultation with the FWS if a net increase in permanent system roads exceeds a certain level, and reporting requirements for new permanent and temporary roads constructed as well as roads decommissioned. The BMW project contains no construction of permanent system roads, and reporting requirements for this project will be met through programmatic annual reporting conducted Forest-wide.

Spatial boundaries were defined in the grizzly bear analysis for the project area (direct and indirect effects) as well as for the cumulative effects area (considering a much larger scale that is biologically meaningful to grizzly bears) (SFEIS, p. 263; FEIS, pp. 358, 363).

A quantitative secure habitat analysis was included for big game (Elk – MIS) in the Final SFEIS (p. 22), including reference to large secure areas outside the project area, but within the cumulative effects analysis area for grizzly bear. The appellants were provided with this information, including all supporting material (e.g. maps, Doc. 665) in the project record. Secure habitat for big game is similar to that for grizzly bear, although even more conservative, since the buffer from roads is ½ mile (800 m) for elk secure habitat, while it is roughly 1/3 mile (500 m) from roads for grizzly bear secure habitat.

Based on my review of the record relevant to this contention I conclude the decision is in compliance with NEPA, NFMA, ESA and APA.

Issue 1, Contention B. The appellants allege that the Forest Service is violating NFMA in regards to grizzly bear management because the project will increase open motorized route density even further above that recommended for the grizzly bear and there is no mitigation for the increase in this density and in some cases permanent decrease in security.

Response: This project is consistent with all applicable Forest Plan direction, including standards for monitoring MIS and Travel Plan direction (ROD, p. 16; SFEIS, p. 203; PF, Doc. 196). In the BMW project, all roads are temporary and will effectively be closed to public motorized use during project implementation. Upon completion of the project, these roads will be permanently closed and revegetated (ROD, p. 9). The Grizzly Bear Management Plan prepared by Montana Fish, Wildlife, and Parks has a goal to maintain road densities of one mile or less per square mile of habitat. The project analysis area is small relative to the geographic size that is biologically meaningful to grizzly bears. At the larger scale (roughly the size of average female home range), road densities are below and will remain below 1 mi/mi2 under all alternatives (FEIS, p. 362).

Issue 1, Contention C. The appellants allege the Forest Service is failing to use the current best science for management of grizzly bear, as noted in Schwartz et al. 2009, and that road densities outside of secure areas will need to be managed, but this is not being done.

Response: The appellants cite Schwartz et al. 2009 in the appeal, but list Schwartz et al. 2010 in the bibliography and provided a copy of Schwartz et al. 2010 in the appendix to their appeal. Further, the document provided by NEC for review between the FEIS and release of the Supplemental EIS (PF, Doc. 66) was Schwartz et al. 2010, which is the document referred to in the response to comments (pp. 262 to 264) . Therefore, I assume the references in this appeal to Schwartz et al. (2009) were also intended to mean Schwartz et al. (2010).

Secure habitat outside the grizzly bear recovery zone is being managed through implementation of the Forest-wide Travel Management Plan (PF, Doc. 12, pp. 44 to 45). Secure habitat on the Gallatin NF has increased over 1998 baseline levels since the 2006 Travel Plan decision targeted increased secure habitat in subunits identified as needing improvement. Increased secure habitat may be contributing to the increasing occupation of grizzly bears on the GNF outside the recovery zone (SFEIS, p. 204). NFMA consistency for consideration of best available science can be found in the ROD (p. 51). Where appropriate, specialists discussed the use of science in their analysis. Specifically, the new science presented by the appellant between the release of the FEIS and the issuance of the new decision, was Schwartz et al. 2010. A related discussion was presented during the comment period so consideration of this paper was present in Appendix B in the SFEIS (pp. 262 to 264). Disturbance effects of the fuel reduction actions will be temporary in nature and have no long term impacts on habitat security for grizzly bears. The major factors identified as concerns for grizzly bear survival by Schwartz et al. are addressed in the SFEIS in Appendix B (pp. 262 to 264). This analysis considered best available science and is in compliance with the NFMA.

Issue 1, Contention D. The appellants allege that the Forest Service falsely claims that the BMW project will have no long-term impacts on security to grizzly bears and that roads constructed within the current unroaded security areas will not be obliterated, as noted in the ROD at 9 and 16, they will just be closed.

Response: The ROD (p. 9) actually states, "Upon completion of the project, these roads will be permanently closed and revegetated." Under grizzly bear mitigation for roads: once the activity

is complete, these roads should be permanently and effectively closed and revegetated (ROD, p. 16). Appendix A in the SFEIS includes the BMPs for Temporary Roads Remediation and abandoned roads (pp. 230 and 235). As mentioned above in Issue 1, Contention B and C, the Grizzly Bear Management Plan prepared by Montana Fish Wildlife and Parks has a goal to maintain road densities of one mile or less per square mile of habitat. The project analysis area is small relative to the geographic size that is biologically meaningful to grizzly bears. At the larger scale (roughly the size of average female home range), road densities are below and will remain below 1 mi/mi2 under all alternatives (p. 362). Based on my review of the record I conclude the Forest's statements are accurate and appropriate.

Issue 1, Contention E. The appellants allege the Forest Service and FWS violated NEPA and ESA because cumulative impacts to grizzly bear were ignored. They allege the helicopter logging on City of Bozeman lands will cause the 144 days of helicopter logging to be exceeded, making the Incidental Take Statement (ITS) insufficient. They also allege the new roads required for the BMW project were never addressed.

Response: The BO issued by FWS thoroughly covered all relevant factors, including cumulative effects (PF, Docs. 12, 623, 642, and 643). Further, such reasonably foreseeable activity on City of Bozeman lands, if it occurs, would not affect the ITS issued to the Forest Service for the BMW project (K. Dixon, FWS, pers. comm. 1/27/12, PF, Doc. 651). The new information regarding the City of Bozeman forest management is detailed in the ROD (p.3). It was further discussed in the SFEIS (p. 9) how the city has limited funds to commit to the plan and additional details provided did not result in any notable change to cumulative impacts. Relative to this contention, the decision is in compliance with ESA and NEPA.

Issue 2. The appellants contend the BMW project violates the 2001 roadless rule for the following reasons:

1. **The project does not propose to harvest generally small diameter trees.**
2. **The project does not meet the exception for logging in a roadless area because there is no evidence that the IRA to be thinned has uncharacteristic fuel conditions outside the natural variability. The project does not meet the exception for logging in a roadless area because there is no details as to what characteristic of ecosystem structure will be restored.**
3. **The project does not demonstrate compliance with the forest plan hiding cover requirements.**

Response: The 2001 Roadless Rule (36 CFR 294 Subpart B) prohibits timber, cutting, sale or removal in Inventoried Roadless Areas except in certain circumstances. The following exception applies to BMW (36 CFR 294.13(b)(1)(ii)):

> The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11.
>
> > (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;

Based on my review of the record I find the project meets the Roadless Rule exception to "generally harvest small diameter trees" because the analysis considered appropriate ecological and vegetative conditions in determining what tree to harvest. The preamble for the 2001 Rule (66 FR 3257) states "Because of the great variation in stand characteristics between vegetation types in different areas, a description of what constitutes 'generally small diameter timber' is not specifically included in this rule. Such determinations are best made through project specific or land and resource management plan NEPA analyses, as guided by ecological considerations such as those described below." Ecological considerations include potential future development of the stand, and the characteristics and interrelationships of plant and animal communities associated with the site and the overall landscape.

Units 7A, 9, and 10 will be commercially thinned. These units are located in the Gallatin Fringe Inventoried Roadless Area and are located adjacent to private land. In order to reduce the potential effects to Bozeman Creek and City of Bozeman Water Facility from a severe wildfire thinning of small diameter trees (less than 7 inch DBH) will be conducted. However, as noted in the analysis understory thinning alone will not meet the objective; therefore thinning will also occur in larger trees (10 to 12 inch diameter) so that the distance between crowns is about 13 feet. This thinning will reduce the probability of crown fire spreading from crown to crown and reduce the likelihood of Douglas-fir beetle or mountain pine beetle killing many of the larger trees (FEIS, Appendix C-16). Larger trees will be retained, as well some of the smaller, healthy co-dominate trees.

The project file includes detailed stand prescriptions which identify existing conditions, desired conditions, and proposed treatment for moving towards desired conditions (Doc #542, BMU Diagnosis 7A, 9, 10 RX 2010). The desired conditions are based on ecological site factors, including the potential for future development of the stand, including improving stand resilience and structural diversity.

Based on my review of the record I find the project meets the Roadless Rule exception (b)(1)(ii) to maintain or restore the characteristics of ecosystem composition and structure such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.

There is no requirement in the 2001 Roadless Rule for a project to be consistent with the applicable Forest Plan. Regardless, based on my review of the record I find the decision is in compliance with the Forest Plan hiding cover requirement (SFEIS, pp. 27 and 41).

Issue 3. The appellants allege the Forest Service will violate the NEPA by failing to evaluate cumulative impacts to grizzly bear from roads, specifically more roads and the heavy use of Forest Road 454.

Response: This is largely the same contention stated in Issue 1, Contention E, above, with Forest Road 454 added in. Forest Road 454 (cited by appellant) is the main administrative road that services the City of Bozeman municipal water treatment plant and the Mystic Lake rental cabin for maintenance. This road receives regular administrative vehicular use during the

summer months, a fact that is well known to area residents, and is also mechanically groomed for skiing in winter. I also note the inconsistency of the appellant's reference to this gated road that receives year-round administrative vehicle use, as a "permanently closed road", while challenging the methods of closing temporary roads upon project completion (See Issue 1, Contention D).

Cumulative effects for all alternatives were analyzed and included all actions in each alternative, including the new roads constructed for the project and the use of other roads when added to other reasonably foreseeable future actions (FEIS, pp. 363 to 366). The Forest took the requisite hard look required by NEPA.

Issue 4, Contention A. The appellants allege the Forest is violating the NFMA and the NEPA by failing to maintain wildlife diversity in the analysis area, and by failing to take a "hard look" at how the project will affect this diversity.

Response: Comments and agency responses in the SEIS (p. 250) include similar topics, explaining that the project will provide for a diversity of plant and animal communities. Forest-wide Standard 6c 2 states: In order to achieve size and age diversity of vegetation, the Forest will strive to develop the following successional stages in timber compartments containing suitable timber...(FEIS, p. 3-216). The Forest Plan includes management direction to provide (vegetative) diversity and the analysis shows how the project contributes to diversity of plant and animal communities in order to meet overall Forest Plan multiple-use objectives (SFEIS, p. 255). MA 12 has a goal to provide habitat for a variety of wildlife and the SFEIS (p. 30) explains how the project would increase habitat structural diversity for big game and other wildlife species. Direct and indirect effects of burning generally results in greater habitat diversity over time (FEIS, p.3- 398) and increased edge resulting from the treatments could also promote habitat diversity (SFEIS, p. 20). NFMA requirements and Forest Plan requirements to provide for diversity are met and this project is in compliance with these NFMA and Forest Plan diversity requirements (ROD, pp. 35 and 53).

Issue 4, Contention B. The appellants allege the Forest Service is in violation of NFMA by not analyzing the impact of past logging on the diversity of cavity associated wildlife and not addressing the diversity of cavity nesting species, since the reduction of snag habitat will reduce the diversity of wildlife species that can be supported by the treated habitat.

Response: Relevant to the contention the Forest did not analyze the impact of past logging, CEQ provides guidance stating, "Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effects of all past actions combined...Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions" (Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005; also see 36 CFR 220.4(f)). The analysis appropriately considered the existing condition and trends as the aggregate effect of past actions and natural process, consistent with the CEQ guidance.

The FEIS included analyses for migratory bird species, focusing on species of concern, as required by Executive Order 13186 associated with the Migratory Bird Treaty Act (FEIS, p. 3-385), and compliance with snag management direction, according to the Forest Plan (FEIS, pp. 3-382 to 383). The primary contention claims a reduction of snag habitat within treatment units, (focusing on logging) but fails to acknowledge increases in snags from proposed burning in treatment units (FEIS, p. 3-387) and that snags are abundant in the project area (FEIS, p. 3-386). Snags are an important component of wildlife habitat and given the current condition due to insects, there is no indication that the project will adversely impact this resource (ROD, p. 36). Additionally, snag habitat was addressed in both responses to comments for the FEIS and the SFEIS, and mitigation for snag management in the BMW project went beyond the minimum requirements in the Forest Plan (SFEIS, p. 251; FEIS, p. 3-37 to 39).

Issue 4, Contention C. The appellants allege the Forest Service is in violation of NEPA by failing to provide any information as to what level of snags are expected in the future in logging units. They further allege that since the Forest Service is not monitoring snags, the snag goals are arbitrary, and wildlife diversity cannot be maintained in the long term.

Response: The Forest Plan standard for snag management requires that an average of 30 snags per 10 acres and live trees for replacement be designated for retention; i.e. left, during project implementation (ROD, p. 16). The decision goes beyond this minimum requirement, leaving 40 snags per 10 acres within harvested Douglas-fir dominant stands and 50 snags per 10 acres within lodgepole dominant stands. In addition, if suitable snags do not exist, double the number of live tress will be left or snags will be created from live trees after thinning is complete (Ibid). The Forest clearly described the minimum number of snags and replacement snags that will be left after harvest.

The decision includes monitoring to evaluate effectiveness of mitigation measures for snag management specific to this project (ROD, p. 18). This provides an appropriate safeguard and trigger for applying the additional mitigation in the form of snag creation if necessary. The project evaluated snags and snag habitat at multiple scales. Snags are abundant within the project area and across the broader landscape (FEIS, p. 3-386). Considering the analysis in the EIS in context with the current landscape conditions, and the including the design and mitigation features of this decision, I conclude the Forest took the requisite hard look under NEPA and the decision is in compliance with the Forest Plan standards relative to snags in support of NFMA's broader diversity requirements.

Issue 4, Contention D. The appellants allege the Forest Service did not use the best available science for snag management by not applying the Northern Region Snag Management Protocol (NRSMP) or Bollenbacher et al. 2008 and that the agency did not develop an MIS for cavity-nesting wildlife and validate a habitat proxy for cavity-nesting habitat.

Response: The BMW snag analyses start where NRSMP and Bollenbacher et al. 2008 end. The Forest used Forest Inventory and Analysis (FIA) and stand exam data to determine and predict average snag and live replacement tree numbers across a large landscape and the project area (SFEIS, p. 248). These data are local field sampled data. These data and associated statistics

were used to provide context for the affected environment discussion, and to develop additional mitigation measures for the project that go above and beyond Forest Plan snag management standards. The method and data associated with the standards is explained in detail (PF, Doc. 627). Information contained in Bollenbacher et al (2008:17) specific to the Gallatin Forest, was used, in context with the localized data, to develop additional(snag management mitigation measures for this project (ROD, p. 16; and PF, Doc. 627). I am pleased the appellants recognize and appreciate the value of these two Regional analyses. For the BMW project the Forest appropriately considered the findings in these documents then extended their analyses based on additional localized knowledge, data, conditions, and trends.

Management indicator species (MIS) for the Gallatin National Forest were determined during Forest planning and are identified in the Forest Plan (p. II-19). It is not appropriate to determine new or different MIS during project-level analyses. Never-the-less, the Forest took a reasoned and measured approach to assessing potential project effects on snags and cavity nesting species in the BMW analysis.

Issue 4, Contention D continued. The appellants allege the Forest Service failed to measure the habitat changes on the goshawk as they relate to changes in key prey species and failed to demonstrate how past logging has impacted goshawk habitat, a violation of NEPA. Further, the appellants allege that the reduction in goshawk habitat will significantly reduce the diversity of wildlife, violating NFMA.

Response: Goshawks were evaluated as an issue and effects to prey species were considered in the FEIS (p. 193). This issue was also addressed in the response to comments in the SFEIS (p. 256). Cumulative effects to goshawk were analyzed and this included effects of past vegetation management, fuel reduction, and thinning projects (SFEIS, pp. 202, 204 to 205). Table 7 in the FEIS (p. 3-195) detailed the vegetative components baseline habitat conditions for goshawk home ranges. This issue was addressed multiple times in the response to comments in the SFEIS (pp. 249 to 252, 256 to 257). Impacts to goshawk habitat, prey species, diversity and cumulative effects were addressed and this project is in compliance with NEPA and NFMA.

Diversity is defined in the Gallatin Forest Plan as, "The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan." As defined, it is measured across the Forest as a whole, not at an individual site or local area. However, as the BMW project maintains suitable habitat for all existing goshawk home ranges, I find compelling evidence that the localized effects will not impact overall diversity at the broader scale. The project is in compliance with NFMA.

Issue 4, Contention E. The appellants allege the Forest Service failed to use the best available science (Reynolds et al. 1992) in relation to goshawk habitat, although requested by the appellant, violating the NEPA.

Response: The best available science was considered in assessing this project and reaching the final decision (ROD, p. 51 and PF, Docs. 774 and 775). This contention was addressed in detail in the response to appellant's comments in the FEIS (pp. C-32 to C-33). The Forest applied the methodology outlined in the Northern Region Overview for Goshawks (PF, Doc. 775).

Reynolds, et al. (1992, PF, Doc 769) was considered both for the project and in developing the Northern Region Overview for Goshawks, where regionally relevant recommendations were incorporated. Reynolds et al. (2006) reviewed their 1992 management recommendations and recognize that specific forest conditions differ among geographic regions. The science used to support the conclusions in the analysis for the BMW project is well founded and the decision was based on sound science (ROD, p. 53).

Issue 4, Contention F. The appellants allege the Forest Service is in violation of NFMA and NEPA by not providing for a diversity of wildlife species due to the 75 percent reduction in goshawk habitat within the project area.

Response: Appellants assertion of a 75 percent reduction in goshawk habitat misstates the facts. All home ranges are maintained with sufficient suitable habitat across the cumulative effects area (FEIS, p. 3-208). Appellants inappropriately convert known present goshawk occupancy into a habitat suitability value, which is neither logical nor biologically reasonable. The Forest appropriately focused recent surveys on habitat most likely to be affected by the proposal to determine whether goshawks were present and whether any active nest sites were located in or near proposed treatment areas. Survey information can be found in the project record (PF, Docs. 676, 677, 678 and 611). Historic nest data and past programmatic surveys conducted within the project analysis area were also considered (SFEIS, pp. 204 to 205 and FEIS, p. 3-194). Surveys were not repeated at past locations unless potentially affected by the proposed project (FEIS, p. 3-196). Non-occupancy of these other analysis area habitats was neither confirmed nor assumed, was not necessary to understand the effects of this proposal, and would not define the habitat as unsuitable if they were not occupied at this time.

In summary, all action alternatives would retain more nesting habitat than the minimum recommended in the Northern Region Overview (FEIS, p. 3-209). This project is in compliance with NFMA and NEPA.

Issue 4, Contention G. The Forest Service violated NEPA requirements for habitat analysis by failing to provide any assessment of the level of dry Douglas-fir old growth for the four goshawk home ranges in the analysis area and assess how Douglas-fir old growth is meeting the needs of the MIS goshawk.

Response: The northern goshawk is identified in the Forest Plan as an indicator species for old growth dependent species in dry Douglas fir sites, and presence of nesting goshawks is documented in the project analysis area (FEIS, p. 3-194). However, goshawks use habitats other than dry Douglas-fir old growth. Stand characteristics representative of known goshawk nest sites on the Bozeman Ranger District was used to identify nesting habitat in the project analysis area (Table 7-1, PF, Doc. 11, P. 3-194 and 196). The Forest appropriately estimated effects to goshawk based on the species needs across the entire project area, not solely on effects to dry Douglas-fir old growth stands.

RECOMMENDATION

I have reviewed the record for each of the contentions and have found that the analysis and decision adequately address the issues raised by the appellants. I recommend the Forest Supervisor's decision be affirmed and the appellants' requested relief be denied.

KEVIN T. RIORDAN
Forest Supervisor

cc: Teri Seth, Steve Christiansen, Mary C Erickson, Ray G Smith, Peter N Zimmerman